Effectiveness of Unimodal and Multimodal Approaches to Students' Listening Comprehension Skills

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ABSTRACT

Listening is one of the most essential skills for the learners' academic success. Hence, it must be developed and enhanced through the use of Multi-modal and Uni-modal Approaches. This quasi-experimental study investigated the effectiveness of the approaches in enhancing the listening comprehension skill of Grade 12 students in a private school. Descriptive statistics such as frequency, percentages, mean, and standard deviation were utilized. T-Test was also used to determine if there was a significant difference in the students' pretest and post-test in listening comprehension. Analysis of Covariance (ANCOVA) was used to determine the significant difference in the score increment between the two groups. The study made use of a researcher- made test which underwent validity and reliability testing. Findings revealed the approaches were effective in increasing students' listening comprehension skill in noting details, sequencing of events and making inferences. Uni-modal approach outperformed the Multi-modal approach as indicated by significant higher increments in their listening comprehension skill. This research would provide a great worth of information to school administrators and teachers to make use of the approaches to address the challenges in the listening comprehension skill among senior high school students.

Keywords: unimodal approach, multimodal approach, listening comprehension skills

INTRODUCTION

Listening is one of the most important macro skill that a person must master. It plays a very important role in the life of a person. Through listening, one will be able to acquaint and understand a person. Listening entails comprehending but sometimes it is neglected in a sense that not all people pay attention to it and not all respond thoroughly in a certain situation. Teaching listening to students is very challenging for it really demands a lot of time, effort, and patience from the teacher in order for the students to well-comprehend and respond on the information they have listened to. Indeed, listening is a lifetime skill that needs to be mastered by students as it allows them to convey and respond thoroughly to situations.

Guichon & Mcloman (2008) expressed that employing audio (Unimodal Approach) or videos (Multimodal Approach) can absolutely enrich learners' listening comprehension skill. Through videos, learners actually see how intonation matches the facial expressions, behavior and gestures and through audio, learners can pay attention to what they hear. Mohamed (2018) emphasized that using audio (unimodal approach) inside the classroom is very useful in developing the listening comprehension of the learners. Moreover, using videos (Multimodal Approach) improves the concentration and focus of the learners in a listening course.

Furthermore, using unimodal and multimodal approaches inside the classroom is a good pedagogical approach to enhance and improve the listening comprehension skill of the learners (Plank, 2009).

The researcher observed that during her English class, learners were having a hard time understanding and communicating what they just have heard, the reason for this could be the traditional way of teaching the students, where the teacher reads the material and let the students listen to the teacher and answer the guide questions after. This scenario is more evident when the teacher asks the learners about the presented

material and they cannot answer or even repeat what the presented material is about. It is also difficult to catch the attention of the learners, even if the teacher provides a copy of the material to them. Some students listen but cannot internalize what they have just heard or read from the material. This observation is evident when the teacher gives the learners some guide questions based on the material given and still some of them cannot answer it.

STATEMENT OF THE PROBLEM

This study aimed to find out the effectiveness of Unimodal and Multimodal Approaches in enriching the listening comprehension skill of Grade 12 Senior High School Students in a private secondary school in Cagayan de Oro City.

Specifically, this study answered the following questions:

1. What are the two groups' pretest and posttest scores in listening comprehension considering the following:
   o noting details,
   o sequencing of events,
   o making inferences, and
   o getting the main idea?
2. Do the two groups of learners' listening comprehension pretest and posttest scores differ significantly?
3. Is there a significant difference in the score increments of the two groups?

Hypotheses

The following null hypotheses were tested at 0.05 level of significance:

Ho_1:   There is no significant difference in the pretest and posttest results in the listening comprehension score of each group.

Ho_2:   There is no significant difference in the listening comprehension score increments of the two groups of learners.

THEORITICAL AND CONCEPTUAL FRAMEWORK

This study argues that Unimodal and Multimodal Approaches can enhance learners' listening comprehension skills in terms of noting details, sequencing of events, making inferences, and getting the main ideas. This assumption is based on Mayer's (2014) Cognitive Theory of Multimedia Learning, Paivio's (2006) Dual-Coding Theory, and Barlett's (2002) Schema Theory. According to the Cognitive Theory of Multimedia Learning of Mayer (2014), worthwhile learning happened when learners are able to pay concentration to the important portions of graphics and words as they are registered in memory. Learners learn the concept more through pictures and words than in words alone. Moreno & Mayer (2002) pointed out that learners learn more from multimedia lessons that include narration and graphics.

Mayer (2005) cited three assumptions of this theory namely: Limited Capacity Assumption, Dual Channel Assumption, and Active Processing Assumption. These three assumptions of Mayer (2005) were used in the study. Wherein, in the first assumption which is Limited Capacity Assumption, the researcher made sure that the materials that will be given to the learner is appropriate to their level and the words must be simple and that long. For the second assumption which is Dual Channel Assumption, in this assumption the researcher used the audio-video in presenting the material where learners listen to the sound and at the same time with graphics and animations. The third assumption is the Active Processing Assumption, this assumption states that humans actively process information they create mental representation of skills which the researcher did in the study. In this paper, the researcher utilized the multimedia principle. The

multimedia principle denotes that it is better to present the information in both words and pictures than words alone (Zhang and Barber, 2008). The multimedia principle in this study refers to the presentation of Multimodal Approach (audio, text, and video) which utilizes animation and sounds.

Corollary to this theory is Paivio's Dual-coding Theory (2006) which cited that when words and pictures are combined, successful learning occurs. Dual-coding or dual processing postulates that working memory consists of two distinct systems: verbal and non-verbal system. Using both systems lead to processing of more information than using one of the systems. In addition, it also produces better results because it simultaneously connects the two systems that assist learners to process the information presented in the material, one subsystem relates to the verbal while the other one deals with graphics or images (Mayer, 2009). The two dual systems in dual-coding theory were employed in this study. Unimodal approach involved the verbal representations (audio only) while Multimodal approach involved mental images as well as the verbal representations of the material (text, audio and video).

Another theory that can support this study is the Schema Theory which was proposed by Frederic Bartlett (2002). He pointed out that people's memorizing ability to organize various information and experiences into cognitive structure to form conventional schemata. He also cited that people have schemata, or unconscious mental structures that represent their generic knowledge about the world. It is through schemata that old knowledge influences new information.

Schemata theory is one of the most important theories of learning that is applied to language teaching and learning. Rea and Mercuri (2006) explained that a schema is a mental framework by which we organize concepts. Teachers encourage schema building by helping students to build their background knowledge. According to schema theory, text does not carry meaning by itself: it provides hints to allow readers and listeners to construct meaning from prior knowledge.

In teaching listening, schema can be divided into linguistic schema and content schema. Carrel & Eister hold (2011) claimed that linguistic schema is the listener's existing linguistic knowledge, examples include, phonetics, lexis, grammar and so on. Linguistic schema contains language information in the materials which played a basic part in a comprehensive understanding of the context. Content schema on the other hand, is also known as topic schema. Carrel & Eisther hold (2011) illustrated that content schema referred to people's own background knowledge about the topic and provided people with a foundation, a basis for comprehension. In other words, content schema refers to the background information that reflects the learners' degree of familiarity to listening material.

The two listening comprehension modes in schema theory were employed in this study. Unimodal approach involves the bottom-up and top-down processes.

METHODS

This study used the quasi- experimental design to identify a comparison of group that is as similar as possible to the treatment group in terms of pre-intervention characteristics. This study examined the effectiveness of the two approaches (Unimodal and Multimodal) as an intervention to enhance the listening skills of learners. In a pretest-posttest design, the dependent variable is measured once before the treatment is implemented and once after the treatment is implemented. The participants of the study were two heterogeneous sections of Grade 12 senior high school with 50 participants in each section enrolled in a private institution of Cagayan de Oro City in the school year 2019-2020. The researcher used these two sections namely Science, Technology, Engineering and Mathematics Strand (STEM) and General Academic Strand (GAS). The researcher used a researcher – made test particularly comprising of multiple choice questions. The items were based on the competencies set by the Department of Education. It focused mainly on the listening comprehension skills such as: noting details which comprises of 12 items, sequencing of events comprises of 17 items, making inferences is 13 items and getting the main idea which has 8 items.

The items were content validated and tested for reliability. To obtain understanding of the data statistical tools were used in the study, for problem number 1, descriptive statistics. Descriptive statistics include frequency distribution, percentage and mean were employed to determine the two groups' pretest and posttest scores in listening comprehension. For problem number 2, T-test was used to determine any significant difference in the two groups of learners' listening comprehension pretest and posttest scores. For problem number 3, Analysis of Covariance (ANCOVA) was used in examining the difference in the score increment between the two groups.

DISCUSSIONS OF RESULTS

The following are the salient findings of the study:

1. **What are the two groups' pretest and posttest scores in listening comprehension considering the following:**
   - noting details,
   - sequencing of events,
   - making inferences, and
   - getting the main idea?

`It can be inferred that learners fall into *very good* category for both approaches in terms of noting details because the activities provided to them arouses their interest to listen and pay attention to the presented material.

Range	Interpretation	Multimodal				Unimodal			
		Pretest		Posttest		Pretest		Posttest	
		F	%	F	%	F	%	F	%
11.00 – 12.00	Outstanding	5	10.00	17	34.00	0	0.00	33	66.00
9.00 – 10.99	Very Good	6	12.00	21	42.00	14	28.00	16	32.00
7.00 – 8.99	Good	23	46.00	7	14.00	23	46.00	1	2.00
5.00 – 6.99	Fair	9	18.00	5	10.00	12	24.00	0	0.00
3.00 – 4.99	Poor	3	6.00	0	0.00	1	2.00	0	0.00
1.00 – 2.99	Very Poor	4	8.00	0	0.00	0	0.00	0	0.00
Total		50	100	50	100	50	100	50	100
Overall Mean		6.92		9.56		7.48		10.70	
Description		Fair		Very Good		Good		Very Good	
Standard Deviation		2.50		1.75		1.39		1.10	

2. **Do the two groups of learners' listening comprehension pretest and posttest scores differ significantly?**

After the implementation and intervention that the researcher made, there is an increase of scores that was observed as shown in the table below for sequencing of events. There is an overall mean of 14.16 for multimodal which is in the *very good* category and 16.12 for unimodal approach which is in the *outstanding* category.

Range	Interpretation	Multimodal				Unimodal			
		Pretest		Posttest		Pretest		Posttest	
		F	%	F	%	F	%	F	%
16.00 – 17.00	Outstanding	5	10.00	20	40.00	21	42.00	43	86.00
13.00 – 15.99	Very Good	28	56.00	19	38.00	20	40.00	3	6.00
10.00 – 12.99	Good	8	16.00	6	12.00	3	6.00	4	8.00
7.00 – 9.99	Fair	7	14.00	5	10.00	5	10.00	0	0.00
4.00 – 6.99	Poor	2	4.00	0	0.00	1	2.00	0	0.00
1.00 – 3.99	Very Poor	0	0.00	0	0.00	0	0.00	0	0.00
Total		50	100	50	100	50	100	50	100
Overall Mean		12.86		14.16		14.04		16.12	
Description		Good		Very Good		Very Good		Outstanding	
Standard Deviation		2.79		2.60		2.79		1.48	

3. Is there a significant difference in the score increments of the two groups?

Table 3 displays the pretest and posttest overall mean scores of two groups in terms of making inferences. From the figures, it was revealed that both groups belong to the *good* category with an overall mean score of 7.14 for pretest and 8.38 for posttest for the multimodal approach. Same goes with the unimodal approach that belongs to the *good* category with an overall mean of 7.98 for the pretest and 9.58 for the posttest.

Range	Interpretation	Multimodal				Unimodal			
		Pretest		Posttest		Pretest		Posttest	
		F	%	F	%	F	%	F	%
12.00 – 13.00	Outstanding	3	6.00	5	10.00	0	0.00	13	26.00
10.00 – 11.99	Very Good	7	14.00	9	18.00	10	20.00	12	24.00
7.00 – 9.99	Good	20	40.00	28	56.00	35	70.00	21	42.00
5.00 – 6.99	Fair	9	18.00	7	14.00	3	6.00	3	6.00
3.00 – 4.99	Poor	9	18.00	1	2.00	2	4.00	1	2.00
1.00 – 2.99	Very Poor	2	4.00	0	0.00	0	0.00	0	0.00
Total		50	100	50	100	50	100	50	100
Overall Mean		7.14		8.38		7.98		9.58	
Description		Good		Good		Good		Good	
Standard Deviation		2.81		2.07		1.63		2.31	

The table reveals that for the multimodal approach group that there is no increase of level in their performance, however, there is an increase in the overall mean of multimodal approach.

Range	Interpretation	Multimodal				Unimodal			
		Pretest		Posttest		Pretest		Posttest	
		F	%	F	%	F	%	F	%
7.01 – 8.00	Outstanding	0	0.00	0	0.00	0	0.00	11	22.00
6.01 – 7.00	Very Good	4	8.00	5	10.00	5	10.00	9	18.00
5.00 – 6.00	Good	24	48.00	23	46.00	37	74.00	15	30.00
3.00 – 4.99	Fair	14	28.00	19	38.00	8	16.00	15	30.00
2.00 – 2.99	Poor	8	16.00	3	6.00	0	0.00	0	0.00
1.00 – 1.99	Very Poor	0	0.00	0	0.00	0	0.00	0	0.00
Total		50	100	50	100	50	100	50	100
Overall Mean		4.42		4.68		5.38		5.70	
Description		Fair		Fair		Good		Good	
Standard Deviation		1.59		1.41		0.96		1.75	

The null hypothesis, which states that there is no significant difference between the pretest and posttest result in the listening comprehension of each group, is rejected. This means that the multimodal and unimodal approach have contributed to the students' improvement on their listening comprehension skills specifically on noting details, sequencing of events and making inferences.

Dependent Variables		Multimodal				Unimodal			
		Pretest	Posttest	t	p	Pretest	Posttest	t	P
Noting Details	Mean	6.92	9.56	-6.854**	.000	7.48	10.70	-15.021**	.000
	SD	2.50	1.75			1.39	1.10		
	Description	Fair	Very Good			Good	Very Good		
Sequencing of events	Mean	12.86	14.16	-3.176**	.003	14.04	16.12	-5.399**	.000
	SD	2.79	2.60			2.79	1.48		
	Description	Good	Very Good			Very Good	Outstanding		
Making inference	Mean	7.14	8.38	-3.313**	.002	7.98	9.58	-4.683**	.000
	SD	2.81	2.07			1.63	2.31		
	Description	Good	Good			Good	Good		
Getting the main idea	Mean	4.42	4.68	-0.876	.385	5.38	5.70	-1.406	.166
	SD	1.59	1.41			0.96	1.75		
	Description	Fair	Fair			Good	Good		

*****Significant at the .01 level (two-tailed)*

Based on the table given above, it can be concluded that unimodal approach is much more effective than multimodal approach especially when used inside the classroom. Basing on the data, unimodal is more effective in terms of enhancing the listening skills of the students specifically on noting details, sequencing of events and making inferences. On the other hand, there is this one skill which is getting the main idea that did not significantly differ and accepted the null hypothesis.

Listening Comprehension skills	Cases	Sum of Square	df	Mean Square	Mean Increment		F	p
					Multimodal	Unimodal		
Noting Details	Treatment	26.519	1	26.519	2.64	3.22	12.883**	0.000
	Error	199.67	97	2.058				
	Total	226.19	98					

*****Significant at the .01 level (two-tailed)*

	Cases	Sum of Squares	df	Mean Square	Mean Increment		F	p
					Multimodal	Unimodal		
Sequencing of Events	Treatment	62.672	1	62.672	1.3	2.08	15.973**	0.000
	Error	380.58	97	3.924				
	Total	443.25	98					

*****Significant at the .01 level (two-tailed)*

	Cases	Sum of Squares	df	Mean Square	Mean Increment		F	p
					Multimodal	Unimodal		
Making Inferences	Treatment	19.528	1	19.528	1.24	1.6	4.600**	0.034
	Error	411.78	97	4.245				
	Total	431.3	98					

*****Significant at the .05 level (two-tailed)*

	Cases	Sum of Squares	df	Mean Square	Mean Increment		F	p
					Multimodal	Unimodal		
Getting the Main Idea	Treatment	13.911	1	13.911	0.26	0.32	5.579	0.020
	Error	241.88	97	2.494				
	Total	255.79	98					

*****Significant at the .05 level (two-tailed)*

Furthermore, the result concluded that there is really a need for activities or strategies where the students can relate and be active in the teaching and learning process.

CONCLUSION

Based on the findings of the study, the following conclusion is formulated:

Listening skills are of paramount importance not only to listening comprehension but to students' academic successin general. It is thus, imperative that meaningful approaches have to be explored to assist and enhance the students in their listening comprehension deficit. Both unimodal and multimodal approaches are comparably effective in enhancing and improving students' listening comprehension skills such as: noting details, sequencing of events and making inferences. However, the use of unimodal approach is found more effective in enhancing the students listening comprehension skills.

In general, the findings of the study confirm the researcher's assumption that unimodal and multimodal approaches along with each intervention contribute significantly to the learners' listening comprehension skills. Mayer's Cognitive theory that says worthwhile learning happened when learners are able to pay concentration to the important portions of graphics and words assigned in in registered memory, and Barlett's Schema theory which states that text does not carry meaning by itself but rather provides hints to allow readers and listeners to construct meaning from prior knowledge are not far from this study. The use of unimodal and multimodal approaches has become operational in the listening comprehension process.

The findings point to the need for language teachers to be innovative in their strategies on teaching listening comprehension and to emphasize the use of unimodal approach in their teaching methodology.

Evidently, the Unimodal and Multimodal approaches are effective in improving the learners listening comprehension skills but the unimodal approach can facilitate better the learners' skills in terms of noting details, sequencing of events, and making inferences. This finding confirms the Schema Theory of Frederic Bartlet which states that text does not carry meaning by itself but rather provides hints to allow readers and listeners to construct meaning from prior knowledge.

RECOMMENDATIONS

Based on the mentioned findings and conclusions of the study, the following recommendations were drawn:

1. To the school administrators and academic heads that they:
   - manage routine activities in school and provide instructional leadership to direct educational programs that will enhance and improve the learners' listening comprehension skills.
   - provide trainings for teachers on the use of technology not only in listening but as well as in other skill.
2. To the English teachers that they should demonstrate creativity in every approach or strategy inside the class that will cater the learners' listening comprehension skills and encourage the teachers to use new approaches in teaching.
3. Future researchers may conduct another study in other levels using different skills with the use of the same approaches.

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